

Barometer 3in1 Manual

Product Feature

- **Product Name:** Thermometer & Hygrometer & Barometer 3in1 weather station
- **Measure Range:** 970~1060hPa , -30~50°C , 0~100%Rh
- **Accuracy:** +/-5hPa, +/-2°C, +/-7%Rh(40~70%Rh)



General Information

Atmospheric pressure and the Weather, Air pressure indicates the density of the layer of air that surround the earth and is generally divided into low air pressure and high air pressure according to the degree of density. Furthermore similar to water flowing from a high place to a low place, air flows from high air pressure areas to low air pressure areas.

High air pressure and low air pressure are relative terms in hector-Pascal there is no distinct point which defines what is a low or high pressure area, however we will suppose that passing to the right of 1000hPa is high air pressure zone and passing to left of 1000hPa is low air pressure zone

Low air pressure areas have comparatively large water vapor and this leads to clouds and rain. Consequently the weather deteriorates with the coming of low air pressure and conversely improves with the coming of high air pressure.

Altitude and The Barometer, Since a barometer measures the weight of the air above us, it is important to note that atmospheric pressure decreases with altitude. If we go to the top of a mountain, we find the air is "thin", that is, there is less of it than at sea level. Since there is less air at higher altitudes, there is less weight and the barometer will indicate a lower pressure than it did at sea level.

The Barometer to Be Used

Prior adjustment of the barometer, The barometer has regulated at the factory at 400Meter above sea level, if the altitude in your location is different or that shocks in transit may cause accidental errors,, the barometer indicating must be adjusted by following methods.

1. First to your local altitude, ask for the present atmospheric pressure of your home area (Local weather service, www, optician, calibrated instruments in public buildings, airport). Or use an existing barometer at your location which is known to be accurate
2. Carefully turn the adjusting screw at the back of barometer by a screwdriver until the indicator value coincides with the actual atmospheric pressure. Do not turn the barometer movement too far. Better precision can be achieved by lightly tapping the barometer glass after adjustment has been made.
3. Be careful not to force the adjustment screw. If the screw become tight in a direction, the end of adjustment range has been reached.

Reading Barometer, see following steps:

1. To determine the direction of change in barometric pressure, first tap the face of the barometer with a finger and then turn the knob on the top of lens until the set hand is

lined up with indicating hand.

2. To determine the barometer "TREND", wait several hours and then again tap the face of the barometer and note if the indicating hand has moved.
3. If the indicating hand has moved to the right (clockwise), the barometric pressure is increasing and we say the "barometer is rising".
4. If the indicating hand has moved to the left (counterclockwise), the barometric pressure is decreasing and we say the "barometer is falling".
5. The direction of indicating hand movement indicates the weather trend. Thus as the indicating hand moves to the right, it means the weather will trend to BETTER. As it moves to the left, it means the weather will trend to POOR.
6. After determining the trend by taking the two readings, as above, the set reference hand should again be lined up over the indicating hand for a future reading. Very small changes in the position of the indicating hand are not too important, but a series of small changes in the same direction on consecutive readings taken at short intervals will be significant.

The Barometer and Weather Forecasting, The barometer measures these movements of the atmospheric pressure surround us. The atmospheric pressure corresponds with the weight of the surrounding air masses and depends on the weather situation and the local altitude.

Simply mark the current air pressure with the movable needle and observe the movements of air pressure. You should take reading at least once daily, remember that the rate of pressure change is just as important as the amount of change. This is why multiple reading each day are best for accurate weather forecasting.

Although many factors affect to actual weather conditions, e.g. geographic location, temperature, humidity, wind direction, and even the season, the observation of the change in atmospheric pressure allows you to weather forecast.

The following meteorological "rules of thumb" will be interpret your barometer reading.

1. A fast rise in barometric pressure expressing good weather of short duration can be expected.
2. A rapid drop in barometric pressure be typically expressing the weather disturbance are come and could result in showers of short duration.
3. Regular elevation barometric pressure typically expressing the clear dry weather (cold and dry in winter) can be anticipated.
4. A slow but continuous drop in barometric pressure typically expressing the persistent bad weather can be expected.
5. Slow drop in barometric pressure of 4 to 6hPa per 24 hours typically expressing a depression of some distance away.
6. Barometric pressure drop of 4hPa per hours typically expressing the weather disturbance will come at short time.
7. Steep barometric pressure drop of 12hPa or more within 4 to 5 hour period typically expressing approaching rain and storms with strong winds.

Remember: The most important feature in the use of barometer is barometric trend. Setting the barometer precisely is not normally required because it only indicates a change of air pressure.

Fix the Barometer, The barometer has a keyhole slot at back for wall mounting, fix a anchored screw or nail into the wall and hanging the barometer on it.